

**CLAIMS**

- 1    1.    A slot door assembly for a freeze dryer, the assembly comprising a slot  
2        door for closing a slot formed in a chamber of the freeze dryer, moving  
3        means for moving the door in a direction transverse to the slot to permit  
4        access to the chamber, and rotating means for rotating the door as it is  
5        moved transverse to the slot.
- 1    2.    An assembly according to Claim 1, wherein the rotating means further  
2        comprises means for engaging the door as it is moved away from the slot.
- 1    3.    An assembly according to Claim 1, wherein the rotating means comprises  
2        a cam attached to the door for engaging a curved guide to cause the door  
3        to rotate.
- 1    4.    An assembly according to Claim 3, wherein the moving means is arranged  
2        to move the door from a first closed position to a second open position at  
3        which the cam engages the guide.
- 1    5.    An assembly according to Claim 4, wherein the slot is exposed by the door  
2        when the door is in the second opened position.
- 1    6.    An assembly according to Claim 4, further comprising stopping means for  
2        stopping the moving means at the second open position.
- 1    7.    An assembly according to Claim 4, comprising means for stopping the  
2        moving means at a third open position of the door following rotation  
3        thereof.
- 1    8.    An assembly according to Claim 3, wherein the cam is attached to an arm  
2        connected at one end thereof to the door.

- 1 9. An assembly according to Claim 8, wherein the cam comprises a roller  
2 rotatably mounted on the arm.
- 1 10. An assembly according to Claim 1, wherein the moving means engages a  
2 pivot of the door.
- 1 11. An assembly according to Claim 10, wherein the pivot is connected to the  
2 door towards one end thereof so as to cause the other end of the door to  
3 swing away from the chamber as the door is moved away from the slot.
- 1 12. An assembly according to Claim 10, wherein the pivot passes through an  
2 aperture formed in the moving means.
- 1 13. An assembly according to Claim 10, wherein the moving means is  
2 arranged to move the pivot at a constant rate during both rotational and  
3 non-rotational movement of the door.
- 1 14. An assembly according to Claim 1, wherein the moving means comprises  
2 means for raising and lowering the door.
- 1 15. An assembly according to Claim 1, comprising means for isolating at least  
2 part of the moving means from ambient atmosphere.
- 1 16. An assembly according to Claim 1 further including a freeze dryer having a  
2 chamber and a slot formed in the chamber for providing access to the  
3 chamber.